

Replacement Sheet

**Definition**

```
def GroupTernary(op,size,rd,rc,rb,ra) as
    d ← RegRead(rd, 128)
    c ← RegRead(rc, 128)
    b ← RegRead(rb, 128)
    case op of
        G.MUX:
            a ← (c and d) or (b and not d)
    endcase
    RegWrite(ra, 128, a)
enddef
```

**Exceptions**

none



**Fig. 31E**

Replacement Sheet

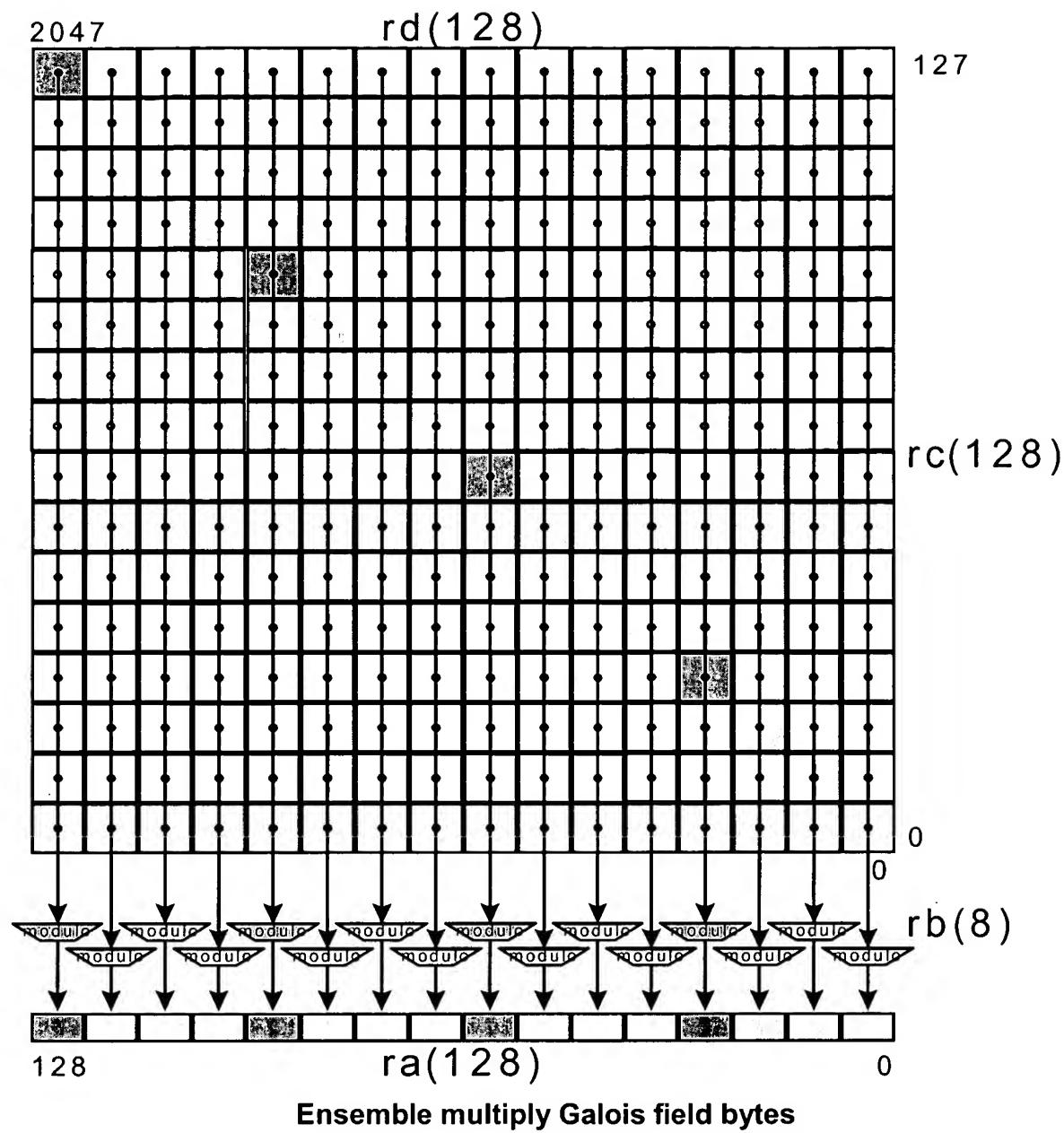
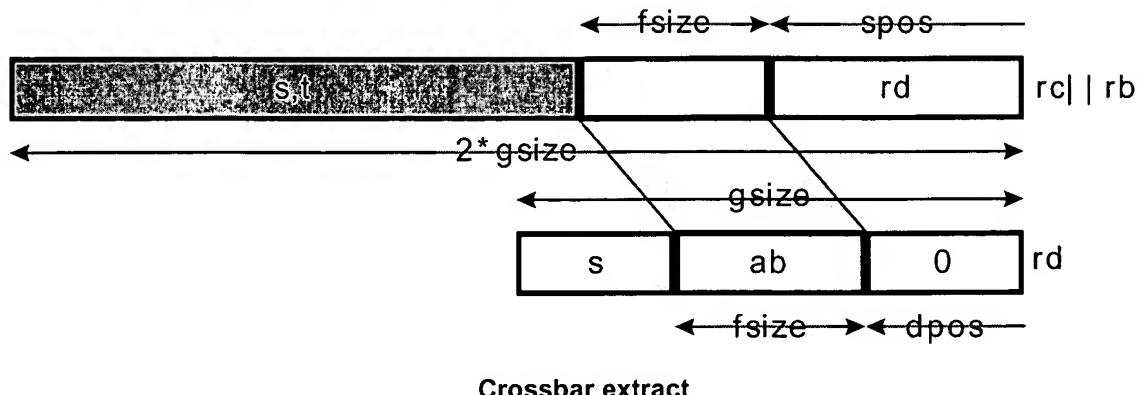
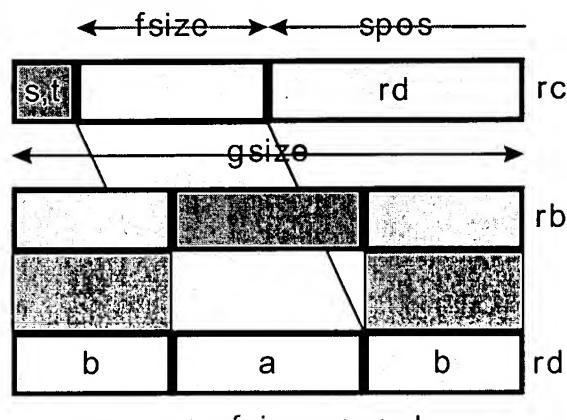


Fig. 42D

## Replacement Sheet



**Fig. 44C**



**Fig. 44D**

## Replacement Sheet

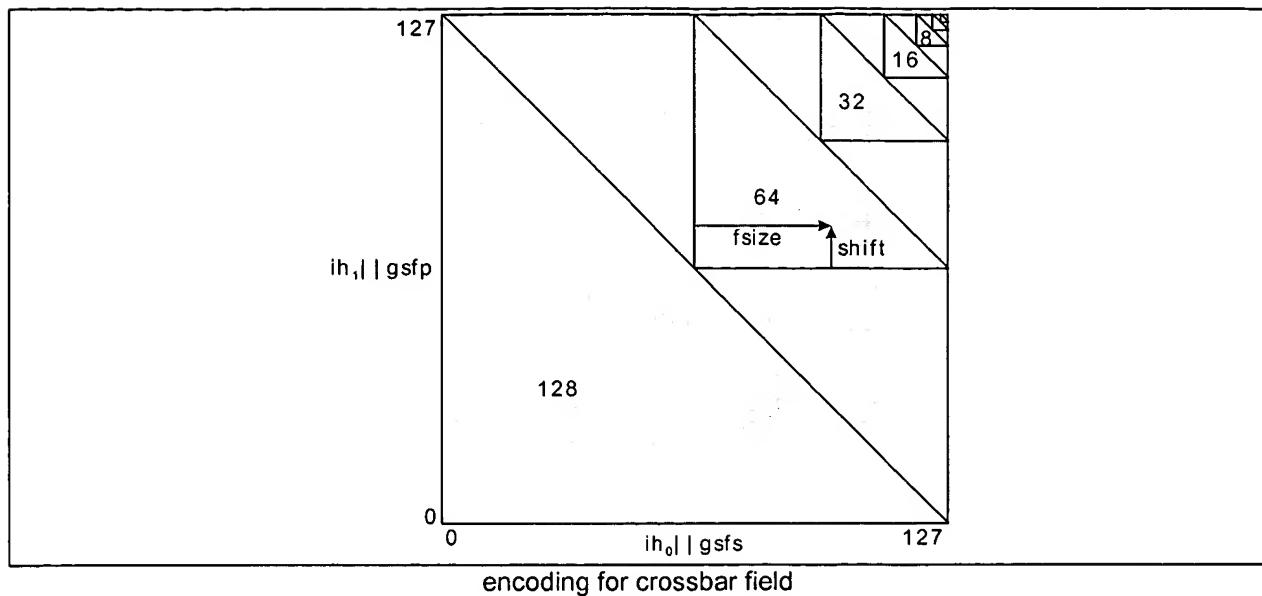


Fig. 45D

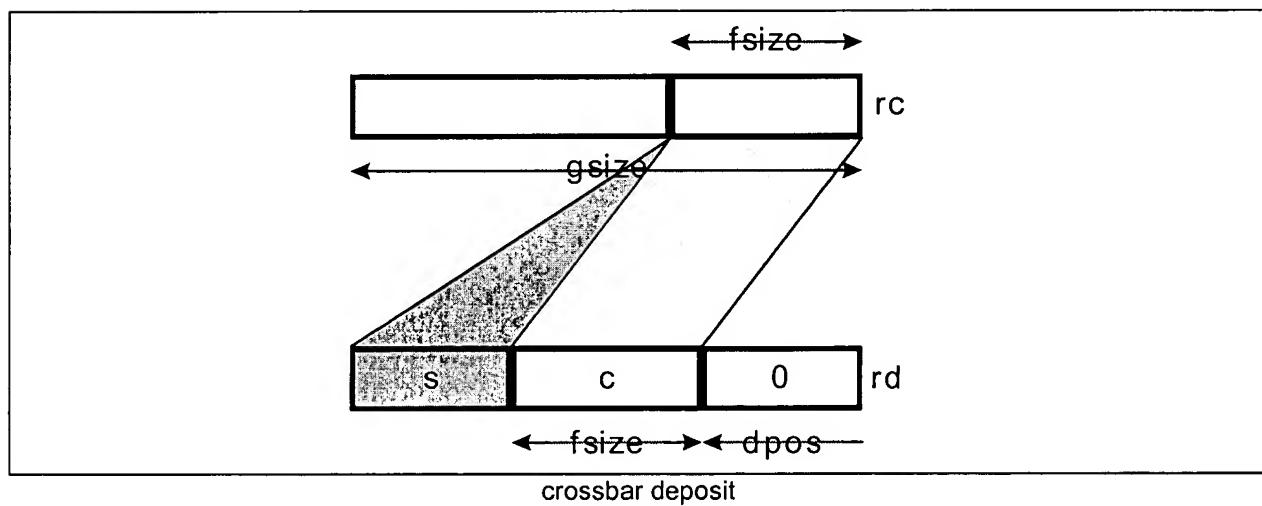
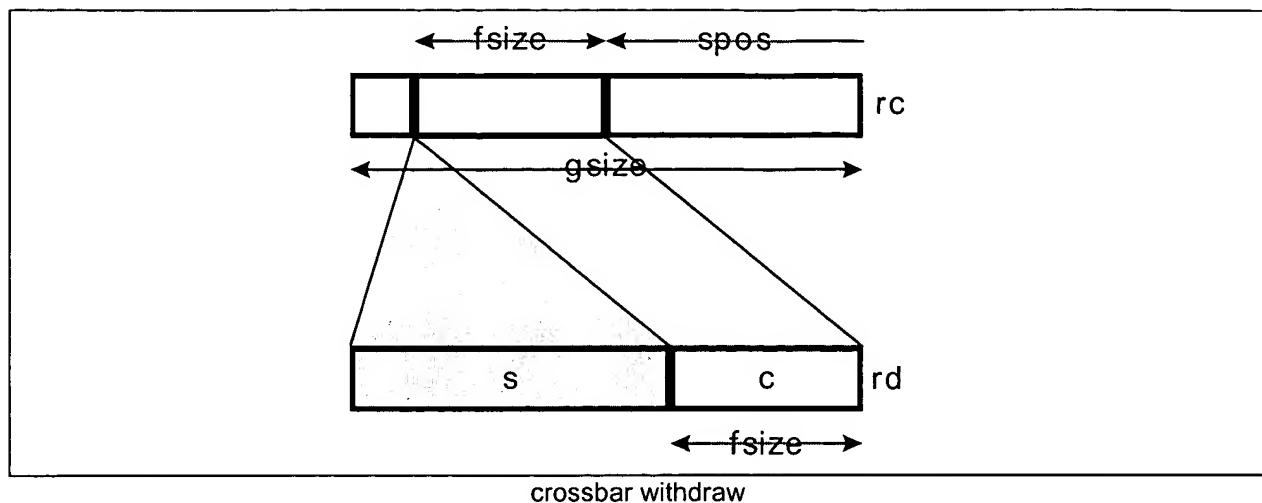


Fig. 45E

Replacement Sheet



**Fig. 45F**

**Operation codes**

X.DEPOSIT.M.2	Crossbar deposit merge pecks
X.DEPOSIT.M.4	Crossbar deposit merge nibbles
X.DEPOSIT.M.8	Crossbar deposit merge bytes
X.DEPOSIT.M.16	Crossbar deposit merge doublets
X.DEPOSIT.M.32	Crossbar deposit merge quadlets
X.DEPOSIT.M.64	Crossbar deposit merge octlets
X.DEPOSIT.M.128	Crossbar deposit merge hexlet

**Fig 45G**

## Replacement Sheet

### Format

X.op.gsize      rd@rc, isize, ishift

rd=xopgsize(rd,rc, isize, ishift)

31	2625	2423	18 17	12 11	6 5	0
op	ih	rd	rc	gsfp	gsfs	

assert isize+ishift ≤ gsize

assert isize ≥ 1

ih<sub>0</sub> || gsfp ← 128-gsize+isize-1

ih<sub>1</sub> || gsfs ← 128-gsize+ishift

**Fig 45H**

## Replacement Sheet

### Definition

```
def CrossbarFieldInplace(op,rd,rc,gsfp,gsfs) as
    c ← RegRead(rc, 128)
    d ← RegRead(rd, 128)
    case ((op1 || gsfp) and (op0 || gsfs)) of
        0..63:
            gsize ← 128
        64..95:
            gsize ← 64
        96..111:
            gsize ← 32
        112..119:
            gsize ← 16
        120..123:
            gsize ← 8
        124..125:
            gsize ← 4
        126:
            gsize ← 2
        127:
            raise ReservedInstruction
    endcase
    ishift ← (op1 || gsfp) and (gsize-1)
    isize ← ((op0 || gsfs) and (gsize-1))+1
    if (ishift+isize>gsize)
        raise ReservedInstruction
    endif
    for i ← 0 to 128-gsize by gsize
        ai+gsize-1..i ← di+gsize-1..i+isize+ishift || ci+isize-1..i || di+ishift-1..i
    endfor
    RegWrite(rd, 128, a)
enddef
```

### Exceptions

Reserved instruction

Fig 45I

## Replacement Sheet

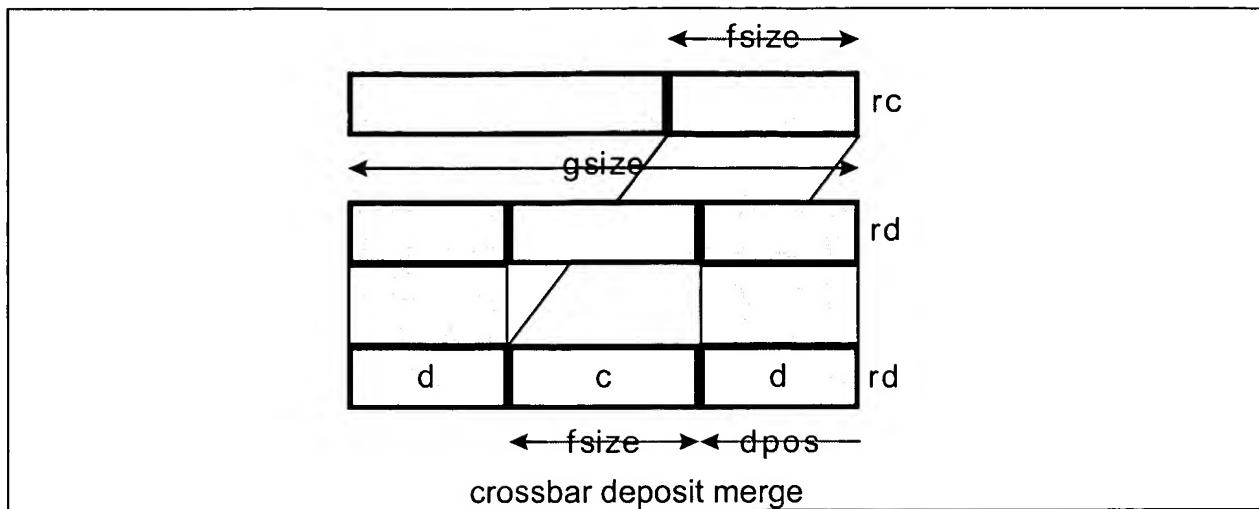


Fig 45J